



SHORT TERM MEASUREMENT SITE ST17



SHORT TERM MEASUREMENT SITE ST17A



SHORT TERM MEASUREMENT SITE ST18



SHORT TERM MEASUREMENT SITE ST19



SHORT TERM MEASUREMENT SITE ST20



SHORT TERM MEASUREMENT SITE ST21



SHORT TERM MEASUREMENT SITE ST22



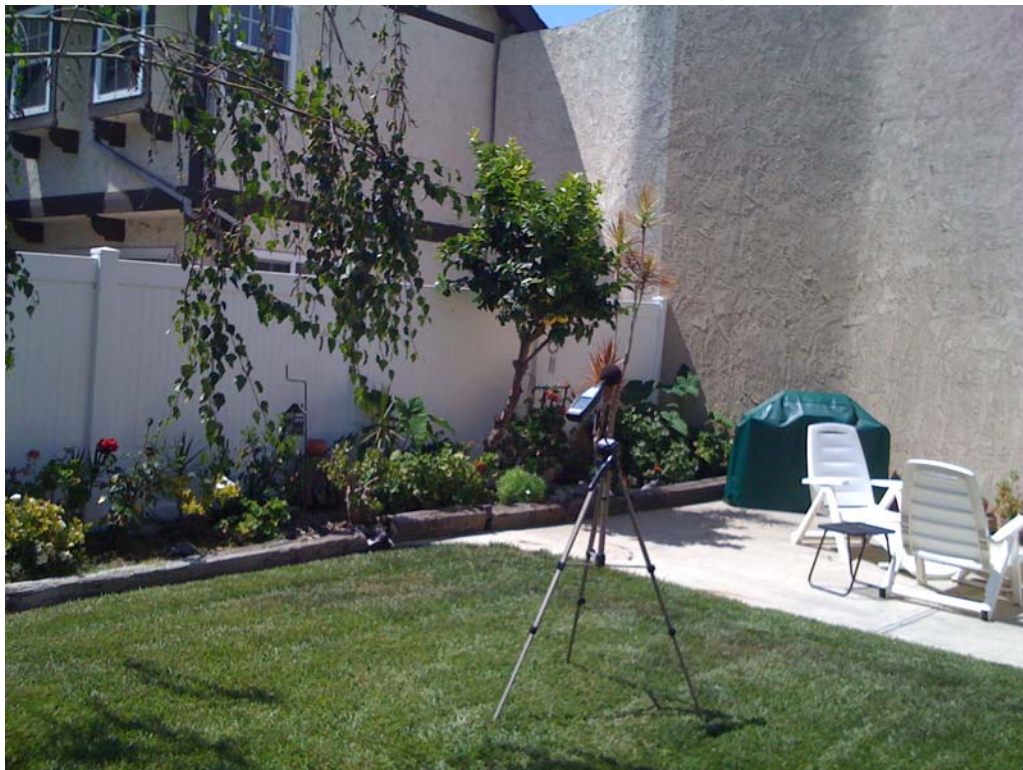
SHORT TERM MEASUREMENT SITE ST23



SHORT TERM MEASUREMENT SITE ST24



SHORT TERM MEASUREMENT SITE ST25



SHORT TERM MEASUREMENT SITE ST25A



SHORT TERM MEASUREMENT SITE ST26



SHORT TERM MEASUREMENT SITE ST27



SHORT TERM MEASUREMENT SITE ST28



SHORT TERM MEASUREMENT SITE ST29



SHORT TERM MEASUREMENT SITE ST30



SHORT TERM MEASUREMENT SITE ST31



SHORT TERM MEASUREMENT SITE ST32



SHORT TERM MEASUREMENT SITE ST32A



SHORT TERM MEASUREMENT SITE ST33



SHORT TERM MEASUREMENT SITE ST34



SHORT TERM MEASUREMENT SITE ST35



SHORT TERM MEASUREMENT SITE ST35A



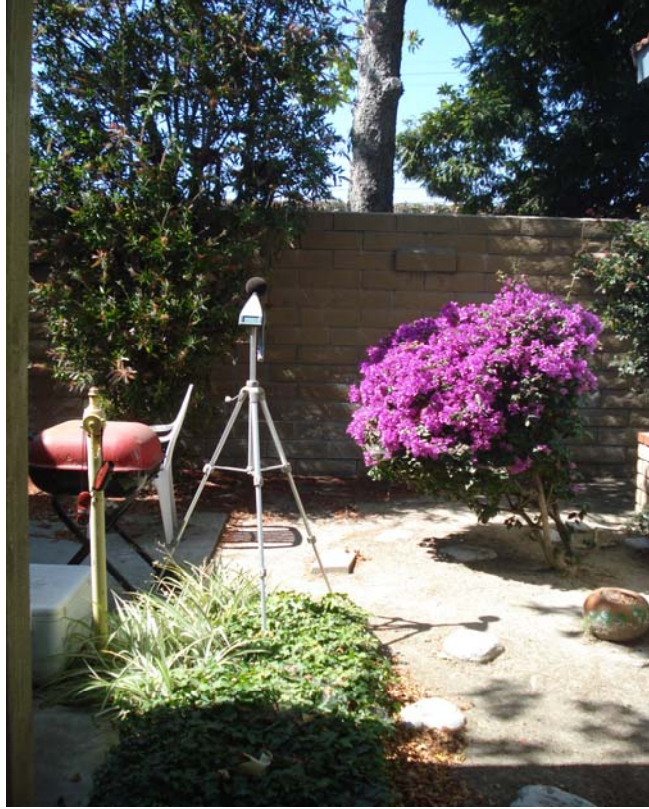
SHORT TERM MEASUREMENT SITE ST36



SHORT TERM MEASUREMENT SITE ST37



SHORT TERM MEASUREMENT SITE ST37A



SHORT TERM MEASUREMENT SITE ST37B



SHORT TERM MEASUREMENT SITE ST38



SHORT TERM MEASUREMENT SITE ST39



SHORT TERM MEASUREMENT SITE ST40



SHORT TERM MEASUREMENT SITE ST41



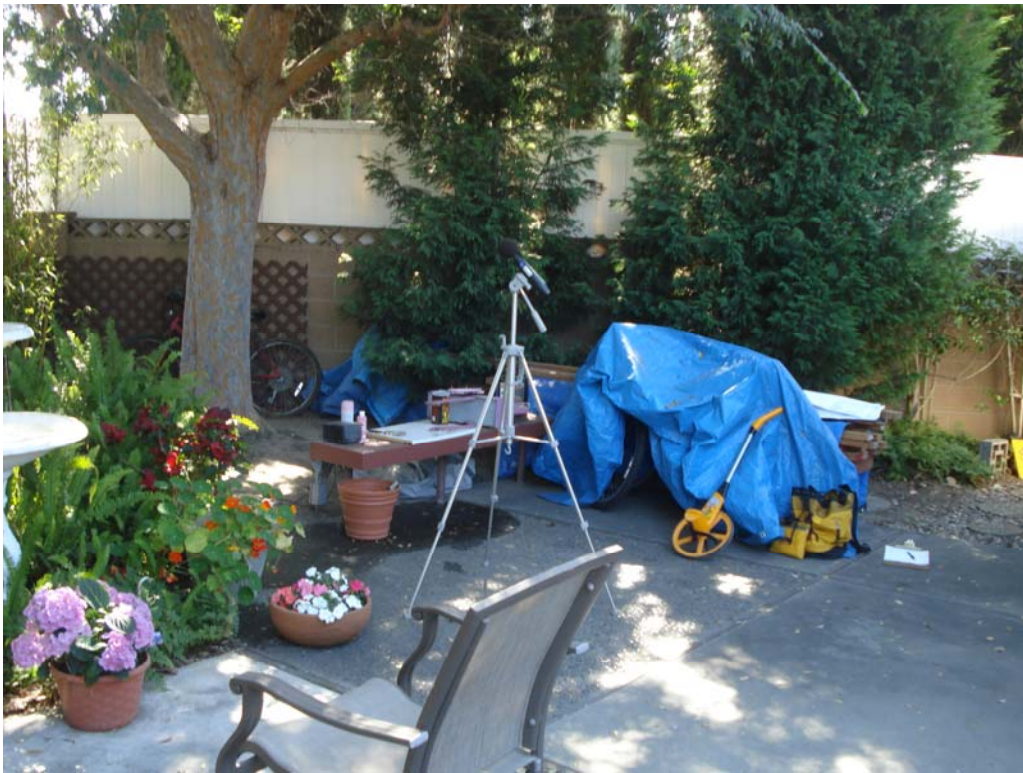
SHORT TERM MEASUREMENT SITE ST41A



SHORT TERM MEASUREMENT SITE ST42



SHORT TERM MEASUREMENT SITE ST43



SHORT TERM MEASUREMENT SITE ST44



SHORT TERM MEASUREMENT SITE ST45



SHORT TERM MEASUREMENT SITE ST46



SHORT TERM MEASUREMENT SITE CAL18

Appendix F Sound Level Meter Calibration Records

Certificate of Calibration and Conformance

Certificate Number 2010-128396

Instrument Model 812, Serial Number 0638, was calibrated on 07APR2010. The instrument meets factory specifications per Procedure D0001.8160, ANSI S1.4 1983, IEC 651-Type 1 1979, and IEC 804-Type 1 1985.

Instrument found to be in calibration as received: YES

Date Calibrated: 07APR2010

Calibration due: 07APR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	LD5020	0277 / 0109	12 Months	24MAR2011	2010-127832

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 26 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

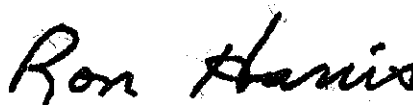
This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Tested with in-house PRM828

Signed:



Technician: Ron Harris

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601

Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215

ISO 9001-2000 Certified

Certificate of Calibration and Conformance

Certificate Number 2008-109828

Instrument Model 812, Serial Number 0639, was calibrated on 20AUG2008. The instrument meets factory specifications per Procedure D0001.8160, ANSI S1.4 1983, IEC 651-Type 1 1979, and IEC 804-Type 1 1985.

Instrument found to be in calibration as received: YES

Date Calibrated: 20AUG2008

Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	LDSigGn/2209	0277 / 0109	12 Months	01APR2009	2008-105087

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 24 ° Centigrade

Relative Humidity: 29 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

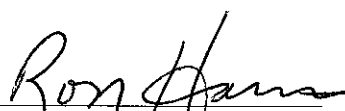
This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Tested with 828-1891

Signed:


Technician: Ron Harris

Certificate of Calibration and Conformance

Certificate Number 2010-128397

Instrument Model 812, Serial Number 0659, was calibrated on 07APR2010. The instrument meets factory specifications per Procedure D0001.8160, ANSI S1.4 1983, IEC 651-Type 1 1979, and IEC 804-Type 1 1985.

Instrument found to be in calibration as received: YES

Date Calibrated: 07APR2010

Calibration due: 07APR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	LDSigGn/2209	0277 / 0109	12 Months	24MAR2011	2010-127832

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 26 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Tested with in-house PRM828

Signed:

Ron Harris

Technician: Ron Harris

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601

Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215

ISO 9001-2000 Certified

Certificate of Calibration and Conformance

Certificate Number 2009-119760

Instrument Model 820, Serial Number 1177, was calibrated on 02JUL2009. The instrument meets factory specifications per Procedure D0001.8160, ANSI S1.4 1983, IEC 651-Type 1 1979, and IEC 804-Type 1 1985.

Instrument found to be in calibration as received: YES

Date Calibrated: 02JUL2009

Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	LDSigGn/2209	0277 / 0109	12 Months	25MAR2010	2009-116756

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 23 ° Centigrade

Relative Humidity: 37 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Tested with 828-1629

Signed:

Ron Harris

Technician: Ron Harris

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601

Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215

ISO 9001-2000 Certified

Certificate of Calibration and Conformance

Certificate Number 2009-118865

Instrument Model 870, Serial Number 0128, was calibrated on 02JUN2009. The instrument meets factory specifications per Procedure D0001.8051, ANSI S1.4 1983, IEC 651-Type 1 1979, and IEC 804-Type 1 1985.

Instrument found to be in calibration as received: YES

Date Calibrated: 02JUN2009

Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	900B	1456123	12 Months	08JUL2009	2007-93864
Larson Davis	LDSigGn/2209	0617 / 0104	12 Months	16JAN2010	2009-114793

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 24 ° Centigrade

Relative Humidity: 36 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"As received" data is the same as shipped data.

Signed: 

Technician: Sean Childs

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

Certificate of Calibration and Conformance

Certificate Number 2009-117293

Instrument Model 870, Serial Number 0344, was calibrated on 10APR2009. The instrument meets factory specifications per Procedure D0001.8051, ANSI S1.4 1983, IEC 651-Type 1 1979, and IEC 804-Type 1 1985.

Instrument found to be in calibration as received: YES

Date Calibrated: 10APR2009

Calibration due: 10APR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	900B	3454	12 Months	01OCT2009	2008-111298
Larson Davis	LDSigGn/2209	0445 / 0111	12 Months	13NOV2009	2008-112722

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 34 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data same as shipped data.

Signed: _____



Technician: Eric Olson

CERTIFICATE OF CALIBRATION
17684-1
FOR BRÜEL & KJÆR INTEGRATING
SOUND LEVEL METER

Model 2238

Serial No. 2540082

ID No. N/A

With Microphone Model 4188

Serial No. 2539490

Customer: **Parsons Engineering Science Inc**
Pasadena, CA 91124

P.O. # Verbal

was tested and met factory specifications at the points tested
according to the Referenced Test Procedure

on **07 SEP 2010**

BY **HAROLD LYNCH**
Service Manager

As received condition: Within Specification.

Re-calibration due on: **07 SEP 2011**

Certified References*

<u>Mfg.</u>	<u>Type</u>	<u>Serial No.</u>	<u>Date Due</u>
B&K	2636	1423390	05 JAN 2011
B&K	1049	1464545	09 JUN 2011
HP	34401	3146A48348	01 JUL 2011
HP	3458A	2823A07179	30 JUN 2011
B&K	4226	1774068	16 MAR 2011

Performed in Compliance with ANSI, NCSL Z-540-1, 1994
and ISO 17025, ISO 9001:2008 Certification NQA No. 11252

*References are traceable to NIST (National Institute of Standards and Technology).

Note: For calibration data see enclosed pages.

The data represent both "as found" and "as left" condition.

Reference Test Procedure: **ACCT Procedure 2238 Ver. 1.2**

Brüel & Kjær Factory Service Instructions: **2238**

Rev. Apr. 1985

Temperature
23 °C

Relative Humidity
35%

Barometric Pressure
984.19 hPa

Note: This calibration report shall not be reproduced, except in full, without written consent by Odin Metrology, Inc..

Signed

ODIN METROLOGY, INC.

CALIBRATION OF BRÜEL & KJÆR INSTRUMENTS
3533 OLD CONEJO ROAD; SUITE 125 THOUSAND OAKS CA 91320
PHONE: (805) 375-0830 FAX: (805) 375-0405

OB. NR

LOC.


MANUFACTURER'S CERTIFICATE OF CONFORMANCE

We certify that Brüel & Kjær **-2250---** Serial No **2676029**
has been tested and passed all production tests, confirming compliance with the
manufacturer's published specification at the date of the test.

The final test has been performed using calibrated equipment, traceable to National or
International Standards or by ratio measurements.

Brüel & Kjær is certified under ISO 9001:2000 assuring that all calibration data for test
equipment are retained on file and are available for inspection upon request.

Nærum 13-feb-2009


Torben Bjørn
Vice President
Operations

Please note that this document is not a calibration certificate, for information on our calibration services please
contact your nearest Brüel & Kjær Service Center.

BA 0238 - 15

WORLD HEADQUARTERS: DK-2850 Nærum · Denmark

Telephone: +45 45 80 05 00 · Fax: +45 45 80 14 05 · <http://www.bksv.com> · e-mail: info@bksv.dk

Brüel & Kjær 

Certificate of Calibration and Conformance

Certificate Number 2010-127315

Microphone Model 2560, Serial Number 3155, was calibrated on 08MAR2010. The microphone meets factory specifications per Test Procedure D0001.8167.

Instrument found to be in calibration as received: YES

Date Calibrated: 08MAR2010

Calibration due: 08MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2900	0575	12 Months	24JUN2010	2009-119575
Larson Davis	CAL250	42630	12 Months	21JUL2010	2009-120364
Larson Davis	PRM915	0102	12 Months	20AUG2010	2009-121224
Larson Davis	PRM902	0206	12 Months	20AUG2010	2009-121219
Larson Davis	2559	3034LF	12 Months	21AUG2010	2009-121293
Larson Davis	2559	2506	12 Months	03SEP2010	16868-1
Larson Davis	PRM902	0529	12 Months	08SEP2010	2009-121767
Larson Davis	PRM902	0528	12 Months	08SEP2010	2009-121766
Larson Davis	MTS1000 / 2201	1000 / 0100	12 Months	09SEP2010	SM090909-3
Hewlett Packard	34401A	3146A62099	12 Months	03NOV2010	4548881
Larson Davis	PRM916	0102	12 Months	17DEC2010	2009-125069

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

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"AS RECEIVED" data is the same as shipped data.

Signed: Abraham Ortega
Technician: Abraham Ortega

Certificate of Calibration and Conformance

Certificate Number 2010-127316

Microphone Model 2560, Serial Number 3159, was calibrated on 08MAR2010. The microphone meets factory specifications per Test Procedure D0001.8167.

Instrument found to be in calibration as received: YES

Date Calibrated: 08MAR2010

Calibration due: 08MAR2011

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2900	0575	12 Months	24JUN2010	2009-119575
Larson Davis	CAL250	42630	12 Months	21JUL2010	2009-120364
Larson Davis	PRM915	0102	12 Months	20AUG2010	2009-121224
Larson Davis	PRM902	0206	12 Months	20AUG2010	2009-121219
Larson Davis	2559	3034LF	12 Months	21AUG2010	2009-121293
Larson Davis	2559	2506	12 Months	03SEP2010	16868-1
Larson Davis	PRM902	0529	12 Months	08SEP2010	2009-121767
Larson Davis	PRM902	0528	12 Months	08SEP2010	2009-121766
Larson Davis	MTS1000 / 2201	1000 / 0100	12 Months	09SEP2010	SM090909-3
Hewlett Packard	34401A	3146A62099	12 Months	03NOV2010	4548881
Larson Davis	PRM916	0102	12 Months	17DEC2010	2009-125069

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Affirmations

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"AS RECEIVED" data is the same as shipped data.

Signed: Abraham Ortega
Technician: Abraham Ortega

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601

Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215

ISO 9001-2000 Certified